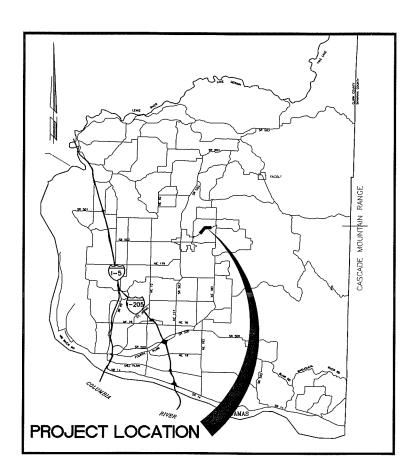
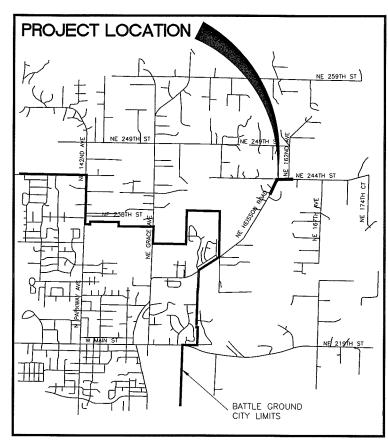
# NE HEISSON ROAD

AND NE 244TH STREET INTERSECTION

PLANS FOR THE CONSTRUCTION OF ROADWAY AND STORM DRAINAGE





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COV COVER SHEET

2 LGN1 LEGENDS AND GENERAL NOTES

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16 SS1 SIGNING & STRIPING

# COMMISSIONERS:

MARC BOLDT, Chair STEVE STUART, Commissioner BETTY SUE MORRIS, Commissioner



DEPARTMENT OF PUBLIC WORKS



Fed. Aid No.



# PRELIMINARY 99% REVIEW SET

ENG #XXXX-XXXXX

Quality Assurance	Project Manager	PW Director/ County Engineer
Bruce Klug, P.E.	Don Andrews, P.L.S.	Peter Capell, P.E.

	Proud pant, promining future CLARK COUNTY WASHINGTON
	Recommended for Approval
S	Erosion

**ENGINEERING PROGRAM - DESIGN SECTION** 

## **SYMBOLS**

<b>a</b>	NEW CATCH BASIN (CB)		EXISTING CURB INLET (CI)
	NEW MANHOLE (MH)	©	EXISTING CATCH BASIN (CB) EXISTING STORM MH
Ø	NEW CURB INLET (CI)		EXISTING MISC MH
	NEW COMBINATION CURB INLET (CCI)	<b>○</b>	EXISTING SHRUB
<u>₽</u>	• •	黨	EXISTING CONIFEROUS TREE
MS I A I	NEW MAIL BOX	ස	EXISTING DECIDUOUS TREE
<b>₩</b>	NEW HANDICAP RAMP	÷	EXISTING SIGN
(C100)	CURVE TABLE	$\odot$	EXISTING DECIDUOUS TREE
⊛	EXISTING TRANSFORMER	J	EXISTING J BOX
	EXISTING ELEC TOWER	<b>O</b>	EXISTING TELEPHONE MANHOLE
O <sub>SAN</sub>	EXISTING SANITARY SEWER MH	$\rightarrow$	EXISTING TELEPHONE POLE
u	EXISTING FIRE HYDRANT	₩	EXISTING LIGHT
O <sub>CL</sub>	EXISTING CLEAN OUT	G	EXISTING GUY ANCHOR
₩	EXISTING GAS VALVE	·O-	EXISTING POWER POLF
$\Theta$	EXISTING WATER METER	_	
₩	EXISTING WATER VALVE	Dt <sub>HB</sub>	EXISTING MAIL BOX
¤	EXISTING SIGNAL POLE	T	EXISTING TELEPHONE PEDESTAL
	EXISTING TELEPHONE VAULT	$\odot$	EXISTING SPRINKLER HEAD
€v	EXISTING TELEVISION BOX	$\triangle$	TRAVERSE POINT
<b>③</b>	EXISTING WELL	$\otimes$	TEST HOLE
ū	EXISTING BRUSH LINE		

CCCCC EXISTING HEDGE

## **GENERAL NOTES**

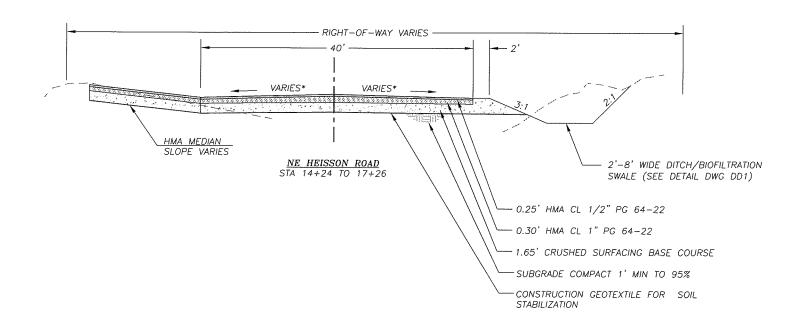
- 1. SURVEY DATUM PER CLARK COUNTY.
- 2. EXISTING UTILITIES SHOWN ON THE PLANS ARE PER SURFACE LOCATIONS, RECORD DRAWINGS, AND LIMITED POTHOLE DATA. THE CONTRACTOR SHALL FIELD VERIFY LOCATIONS OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION. IF CONFLICT EXISTS, NOTIFY THE ENGINEER AND UTILITY COMPANY. PROCEED ONLY AS DIRECTED AND PER STANDARD POLICY AND REGULATIONS (INCIDENTAL TO STORM SEWER PIPE).
- 3. ALL NECESSARY CONSTRUCTION SURVEY SHALL BE PROVIDED AT NO COST TO THE CONTRACTOR. HOWEVER, THE CONTRACTOR WILL BE RESPONSIBLE FOR REPLACING NEEDED SURVEY STAKES DESTROYED THROUGH NORMAL OPERATIONS, NEGLIGENCE, OR INATTENTION.
- 4. AT THE END OF EACH DAY, THE CONTRACTOR SHALL CLEAN UP THE PROJECT AREA AND LEAVE IT IN A NEAT AND SECURED MANNER. UPON COMPLETION, THE CONTRACTOR SHALL LEAVE THE PROJECT AREA FREE OF DEBRIS AND UNUSED MATERIAL.
- 5. CONTRACTOR TO COORDINATE UTILITY RELOCATIONS WITH CLARK PUBLIC UTILITIES FOR POWER AND WATER, QWEST FOR TELEPHONE, NW NATURAL FOR GAS, COMCAST FOR CARLET TV
- 6. CONTRACTOR SHALL PROTECT EXISTING WATER SERVICE LINES. ALL DISTURBED WATER SERVICE LINES SHALL BE REPAIRED AS DIRECTED. ALL RELOCATED METERS WILL BE RESET IN ACCORD WITH CLARK PUBLIC UTILITIES STANDARDS AND SPECIFICATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OF EXISTING WATER SERVICE LINES DESTROYED THROUGH NEGLIGENCE AND/OR INATTENTION.
- 7. CONTRACTOR TO MAINTAIN INGRESS AND EGRESS FROM ALL PRIVATE PROPERTY DRIVEWAYS DURING CONSTRUCTION.

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ENGINEERING PROGRAM
DESIGN SECTION
NE HEISSON ROAD
LEGENDS AND GENERAL NOTES

proud past, promising future



(A) LEFT: TAPER FROM ± 10.5' LT. AT STA 9+00 TO 20' LT. AT STA 10+18.

> TAPER FROM 20' LT. AT STA 19+58 TO 11' LT. AT STA 20+00.

RIGHT: TAPER FROM ± 10.5' RT. AT STA 9+00 TO 20' RT. AT STA 9+41.

TAPER FROM 20' RT. AT STA 19+10 TO ±11' RT. AT STA 20+00.

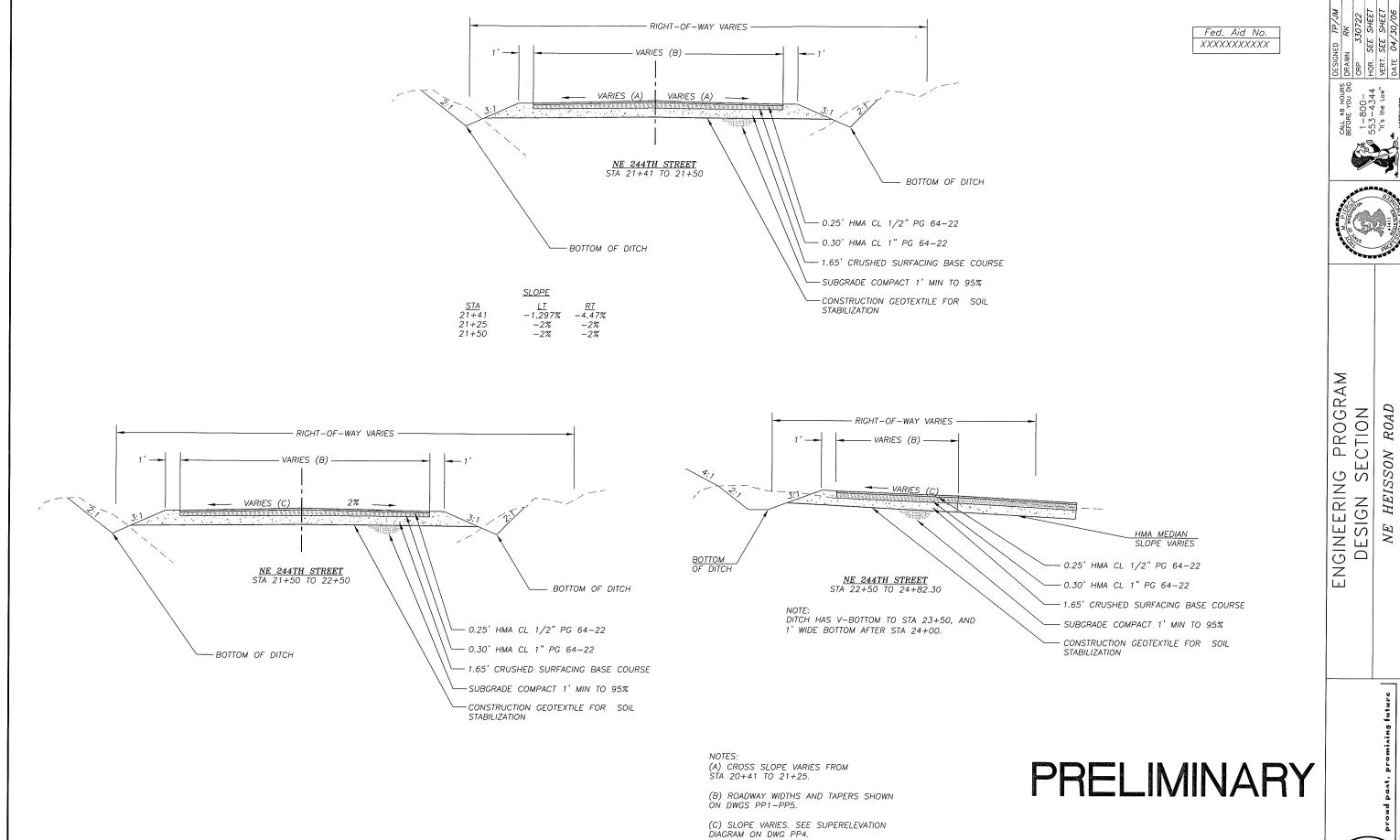
- (B) SLOPE VARIES. SEE SUPERELEVATION DIAGRAM ON DWGS PP1-PP3.
- (C) DITCH (RT) ENDS AT 18+00
- (D) SLOPE OUT OF DITCH BECOMES 4:1 (SEE 244TH SECTION ON DWG TS2)

NOTE: DRIVEWAYS AND THE HMA MEDIAN SHALL BE CONSTRUCTED TO THE FOLLOWING SECTION: 0.25' HMA CL 1/2" PG 64-22 0.50 CRUSHED SURFACING BASE COARSE



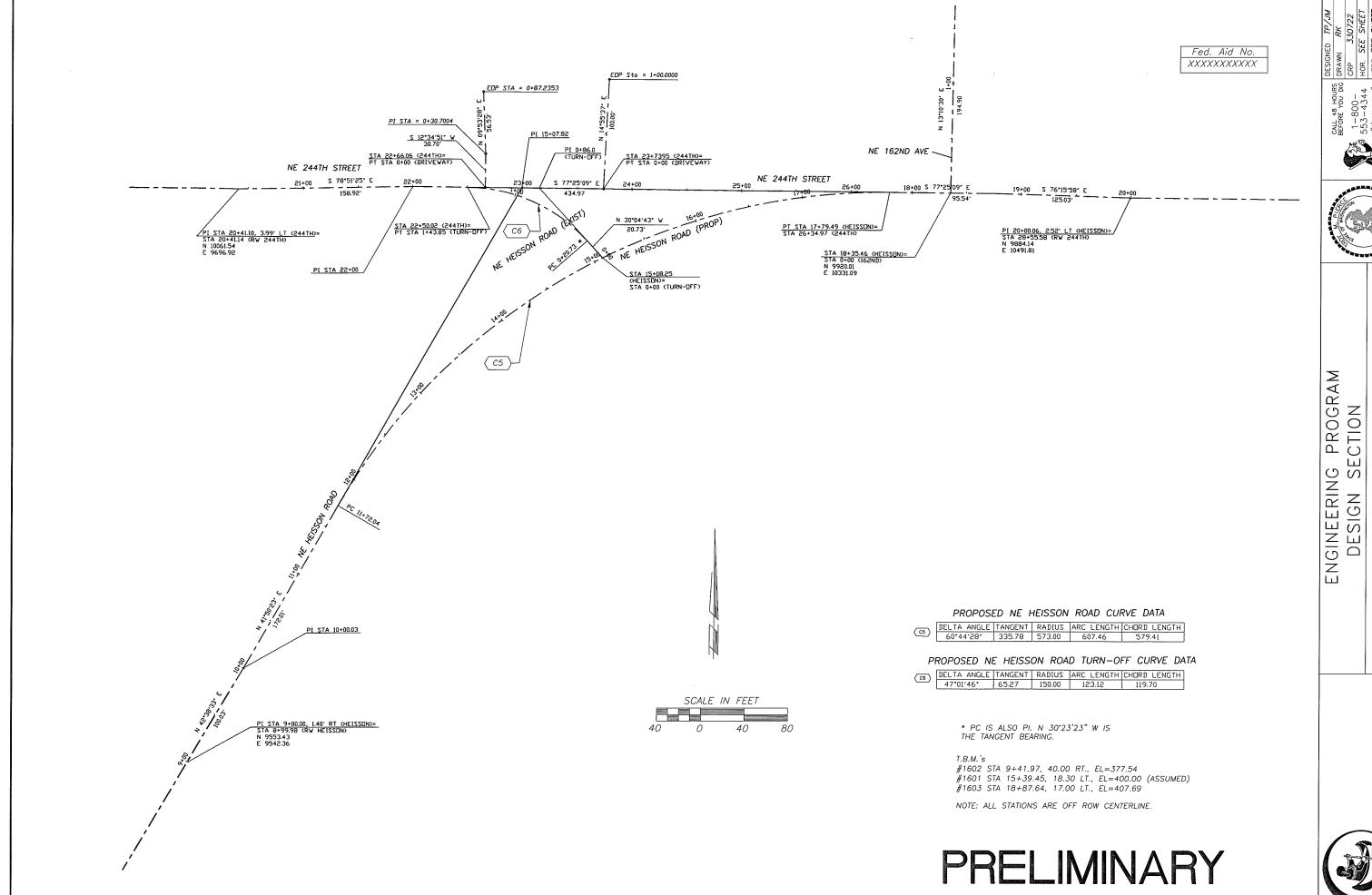


ENGINEERING PROGRAM DESIGN SECTION SSON ROAD SECTIONS NE HEISSON TYPICAL SECT

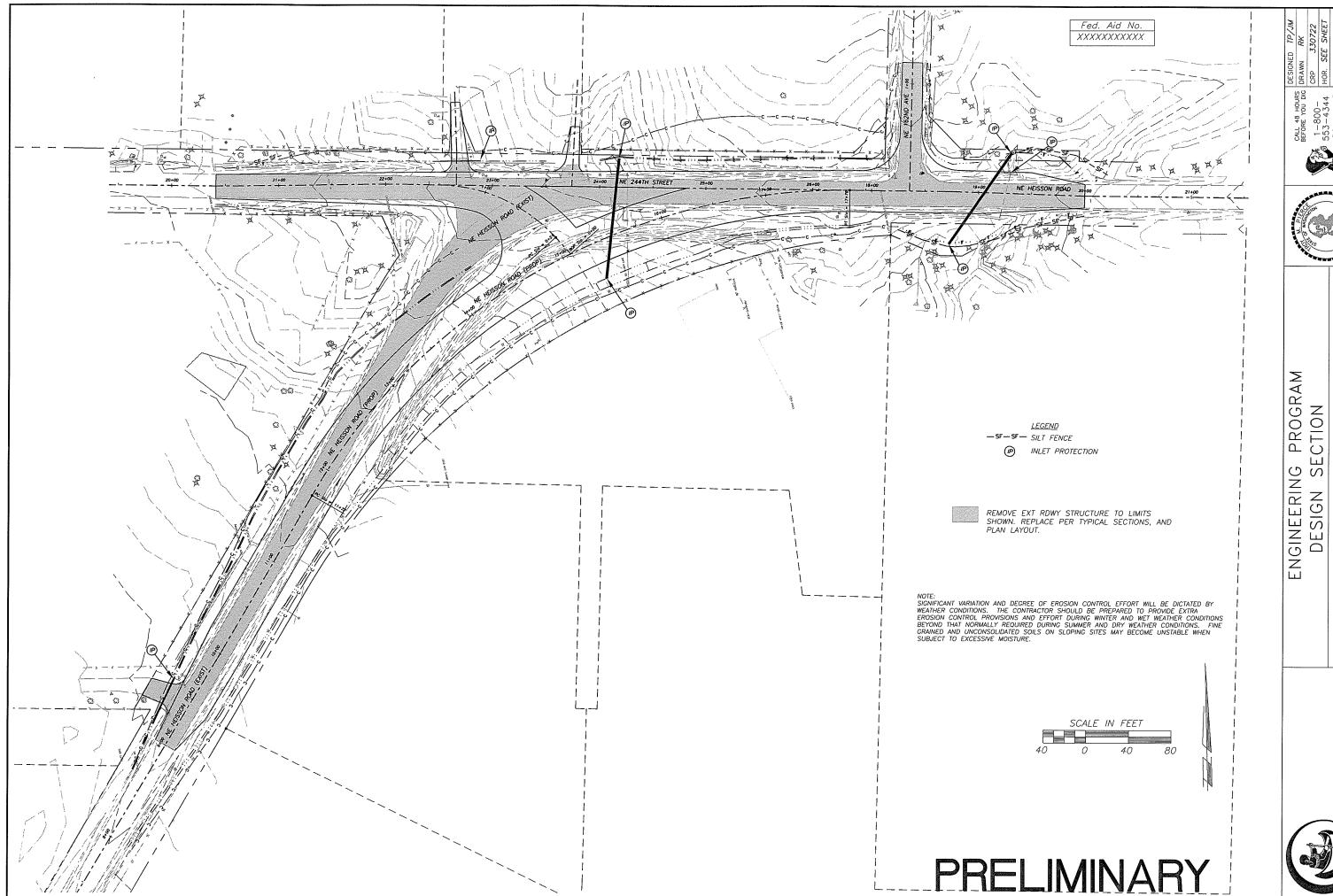








CONTROL









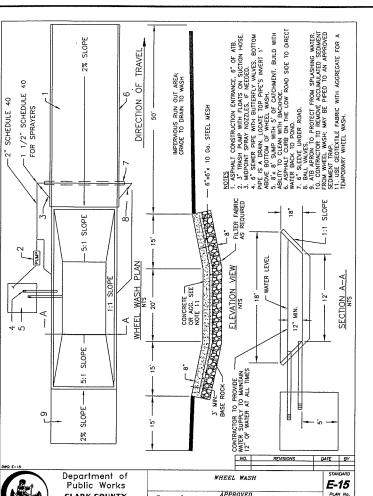
REMOVAL

EROSION



N ROAD ROADWAY HEISSON ROL AND RO NE HE.





**PRELIMINARY** 

13. All conveyance channels, both temporary and permanent shall be stabilized to prevent erosion of the channel. Stabilization shall extend to areas at outlets and downstream

. Stabilized areas shall be provided for employee parking and storage of construction aterials. Erodeable stockpiles of earthen materials, such as topsoil, silty and clayey

soils; and landscape materials, shall be covered when not being incorporated in the work. Erosion control BMP's shall be utilized as necessary to prevent sediment laden runoff from leaving or sediment being transported from these areas from vehicle activity.

16. All pollutants other than sediment that occur during construction shall be handled and disposed of in a manner that does not cause contamination of storm water.

17. The Contractor shall keep an inspection log of the condition of the erosion control facilities. Erosion control facilities shall be inspected at least weekly and after each rainfall. The inspection log shall be kept at the project site at a designated location and shall be available for review by the County. An individual that has successfully completed

18. All temporary BMP's shall be removed within 30 days after final site stabilization is achieved. Tropped sediment shall be deposited and stabilized on site. Areas disturbed resulting from removal shall be permanently stabilized.

19. Construction shall not be considered complete and acceptable until all disturbed soil surfaces have been protected from erosion with permanent landscaping, covering with impervious surfaces, restored to original undisturbed condition or permanently stabilized.

20. Vegetated stabilization and landscaping shall be fertilized, watered and maintained to insure that growth of vegetation is established and sustained.

21. During dry weather construction periods the contractor shall provide project—specific dust control measures that may include: Seeding, Mulching, Matting, Water, Tackifier, or Chemical Soil Stabilizers. The contractor shall maintain the dust control measures through dry weather periods until all disturbed areas have been stabilized. Immediately re—stabilize

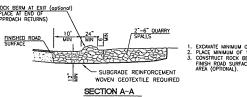
23. Maintenance and repair of heavy equipment and vehicles which involve potential contaminants (oil,solvents,hydraulic fluid, etc.) must be conducted in a manner which prevents contamination of soils, surface water and ground water. Tarps, drip pans, or

reaches vulnerable to erosion resulting from flow discharging from the channel.

water bodies, adjacent properties, or public rights—of—way; additional BMP's shall be implemented immediately to prevent further encroachment of sediment.

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WOVEN GEOTEXTILE REQUIRED



- FOR DEVELOPMENT PROJECTS REVIEWED BY ENGINEERING SERVICES. NOT FOR USE WITH SINGLE FAMILY OF DUPLEX RESIDENTIAL BUILDING PERMITS. SEE BUILDING DEPT. FOR GRAVEL CONSTRUCTION ENTRANCE PLAN.

Department of

- 4. WASHDOWN AREA TO BE MADE UP OF CLEAN 2" 6" QUARRY SPALLS, 1" DEEP (MIN) OVER WOVEN GEOTEXTILE FABRIC. WASHDOWN AREA TO BE FULL WIDTH OF ENTRANCE AND 50' (MIN.), AND 100' IF EXPOSED SOIL IS OVER 5 ACRES.
- AT TIME OF PRECONSTRUCTION MEETING. THE COUNTY INSPECTOR MAY REQUIRE THE ENTRANCE TO BE PAVED TO THE EDGE OF THE RIGHT-OF-MAY PRIOR TO THE INSTALLATION OF A WASHDOWN ENTRANCE TO AVOID DAMAGE TO THE EXISTING ROADWAY.
- 6. THE RESPONSIBLE EROSION CONTROL INDIVIDUAL IS TO ENSURE THAT ALL VEHICLES USE THIS ENTRANCE AND ARE TO BE INSPECTED AND CLEANED OF SOILS BEFORE LEAVING PROJECT, AND THAT THE ENTRANCE IS TO BE KEPT CLEAN AT ALL TIMES.

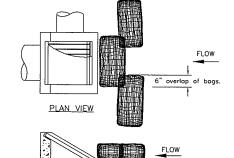
STANDARD CONSTRUCTION ENTRANCE

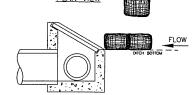


FILTER FABRIC MATERIAL 36" WIDE ROLLS
SEE FABRIC SPECIFICATIONS —



CATCH BASIN



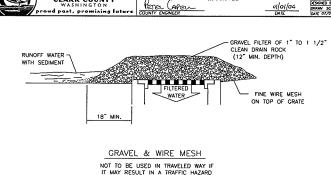


- 1. ADDITIONAL MEASURES MUST BE CONSIDERED DEPENDING ON SOIL TYPE.
- STRAW WATTLES MUST BE STABILIZED BY ATTACHING WIRE CLIPS TO THE CATCH BASIN PER MANUFACTURES SPECIFICATIONS.

4. INLET PROTECTION MUST BE REGULARLY INSPECTED BY PROPER PLACEMENT/FUNCTION AND MAINTENANCE.

- BIO-FILTER BAGS SHOULD BE STAKED WHERE APPLICABLE USING (2) 1"x2" WOODEN STAKES OR APPROVED EQUAL PER BAG.





PLAN VIEW

\_\_\_ 2"x2"x14" go. WIRE OR EQUIVALENT (OPTIONAL)

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PROPERTY Grab Tensile Strena

NOTES

T. THIS SEDIMENT BARRIER UTILIZES STANDARD STRENGTH OF
EXTRA STRENGTH SYNTHETIC FILTER FABRICS, IT IS DESIGNED
FOR STIVATIONS IN WHICH ONLY SHEET OR OVERTAND FLOWS
ARE EXPECTED. (SEE FABRIC SPECIFICATIONS ABOVE)
2. BURY BOTTOM OF FILTER FABRIC S' VERTICALLY BELOW
FINISHED (BRADE).

MAX. SPACING ON SLOPE

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3. POST ARE TO BE 2"x2" FIR, PINE OR STEEL FENCE POSTS.

4. POST TO BE INSTALLED ON UPHILL SIDE OF SLOPE.

5. COMPACT BOTH SIDES OF FILTER FABRIC TRENCH.

6. SEDIMENT FENCE TO BE SPACED ON SLOPES PER TABLE

INLET PROTECTION IS INTENDED TO PREVENT COARSE SEDIMENT FROM ENTERING STORM DRAINAGE SYSTEMS B' FILTERING RUNOFF AND RETAINING SEDIMENT BEFORE IT REACHES A DRAINAGE OR STORM SEWER SYSTEM.

4. INLET PROTECTION TYPES INCLUDE: TYPE 1 - GRAVEL AND WIRE MESH TYPE 2 - MASONRY AND ROCK TYPE 3 - SEDIMENT FENCE TYPE 4 - BIOFILIER BAGS TYPE 5 - CAITCH BASIN INSERT

5. INSPECT ONCE PER WEEK ON ACTIVE SITES, ONCE EVERY TWO WEEKS ON INACTIVE SITES, AND WITHIN 24 HOURS FOLLOWING A 0.5 INCH RAIN EVENT.

CLEAN INLET PROTECTION DURING AND AFTER EACH SIGNIFICANT STORM AND REMOVE SEDIMENT FROM BEHIND STRUCTURE AFTER EVERY STORM.

8. ASSESS THE IMPACT OF ALLOWING WATER TO POND AT THE INLET AND PROVIDE AN OVERFLOW WEIR OR SOME OTHER TYPE OF RELIEF AS NEEDED.

- 12. REPAIR OR REPLACE MATERIALS AS NEEDED TO ENSURE PROPER FUNCTION



SEE INLET PROTECTION NOTES STD. PLAN E-3 Department of Public Works

E-3c

runoff entering to avoid risk of reducing the ability of the systems to infiltrate. Isolatic and protection shall not be removed until the drainage area tributary to the system is Department of Public Works

ry to the system is

wheat x wheat grass hybrid" by Hobbs and Hobkins (or approved equal). Maintenance of stockpile areas and reapplication of hydroseed covering shall be required if bare soil is present. During winter and wet weather conditions, stockpiles shall be covered with plastic sheeting per detail E-16. CONTINUED ON SHEET 2 STANDARD NOTES FOR EROSION CONTOL PLAN CLARK COUNTY

ECN1 APPROVED

Public Works CLARK COUNTY

STANDARD NOTES (CONTINUED) FOR EROSION CONTOL PLAN

SHEET 2 OF 2

ECN2

INLET PROTECTION TYPE 1 CRAVEL AND WIRE MESH

DETAILS

CONTROL

EROSION

HEISSON

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Pener Capier

01/01/04

- SURFACING:

  1. All ACP, shall be saw cut to provide a straight, clean edge prior to paving.

  2. The cut line shall be one continuous straight line from the outer excavation limits of manhole, valve box, etc. to manhole, valve box, etc.

  3. Pave with an 0.5 ft. minimum compacted depth AC,P., or motch existing or design section, whichever is greater.

  4. Litts for ACP. (Class A) shall be 0.15 ft. minimum and 0.35 ft. maximum for non-surface lifts (0.25" maximum for surface lift) the temperature shall be 250 degree minimum, 350 degree maximum, compacted to 92% of the theoretical maximum for sufficient shall be faceted, seeled and sanded.

  5. All joints shall be tacked, seeled and sanded.

  6. Trench shall be plated until poved.

  7. For longitudinal installation, full lane width including turn lanes restoration shall be required or as directed.
- For longitudinal installation, full lane width including turn lanes restoration shall be required or as directed by Clark County. For transverse installation refer to surfacing restoration of detail U6. See Section 12.20A.120.C.

### BASE COURSE:

- 0.80 ft. minimum depth (1-1/4" minus) C.S.B.C. (W.S.D.O.T. approved moterial). Compacted to 95% of maximum density. See trench zone. Equivalent depth of A.T.B. may be substituted. For transverse or diagonal trenches in existing roadway povement, CDF (as defined in the standard specifications section 2-09.3(1)E) will be used for a minimum of 3" in depth or from 6" above the top of the pipe to the bottom of full povement section which ever is less.

## TRENCH ZONE:

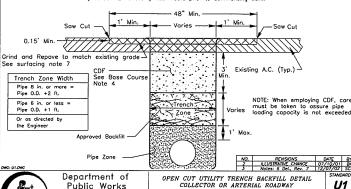
- Granular backfill as approved by local agency or W.S.D.O.T. specifications for granular backfill. Compacted to 95% of maximum density in the trench zone using Method C compaction as per Section 2—03.3(14)C.
   Native material may be used if approved prior to construction by Clark County.
- 3. Trench zone width -- see below.

Pipe zone material as specified by utility owner, and shall conform to section 9-03.12(3) WSDOT Specs.

1.0 ft. max. from top of the pipe. 6° from top of pipe when CDF backfill used.

## CONDITIONS:

- A copy of the permit and requirements shall be on the job site at all times.
   The permit holder shall be responsible for all restoration and maintenance of ditches, shoulders, driveways, landscaping, etc.
   Call Clark County at 397–2446 twenty-four hours prior to commencing work.



## ROADWAY SHOULDER INCLUDES LAWN AND LANDSCAPE

## SHOULDER ROCK:

- 0.50 ft. minimum depth (1 1/4" minus) crushed rock. (Clark County Approved Material).
   Compacted to 95% of maximum density. See trench zone.
   Rock shall extend from E.O.P. to the back of trench at approx. .05 Ft./Ft. slope.

CLARK COUNTY

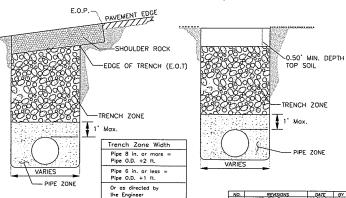
## LAWN & LANDSCAPE AREAS:

## Where the distance from E.O.T. to E.O.P. is less than or equal to the depth of the trench;

- these conditions shall apply: Granular backfill as approved by local agency or W.S.D.O.T. specifications for granular backfill. Compacted to 95% of maximum density in the trench zone using Method C compaction as per Section 2-0.3.3 (14)C.
- Notive material may be used if approved prior to construction
- 3. Trench zone width -- see below.
- 4. Shoulder rock or landscaped sections as applicable.

1. Pipe zone moterial as specified by utility owner, and shall conform to section 9-03.12(3) WSDOT Specs. 2. 1.0 ft. max. from top of the pipe.

- A copy of the permit and requirements shall be on the job site at all times.
   The permit holder shall be responsible for all restoration and maintence of ditches, shoulders, driveways, landscaping, ect.
- 3. Call Clark County at 397-2446 twenty-four hours prior to commencing work



Or as directed by the Engineer NO. REVISIONS

1 NOTE, FIG.
2 Pipe Zone Notes Department of Public Works U5 CLARK COUNTY PETEL CAPELL

Fed. Aid No. XXXXXXXXXXX

CALL 48 HOURS SEFORE YOU DIG



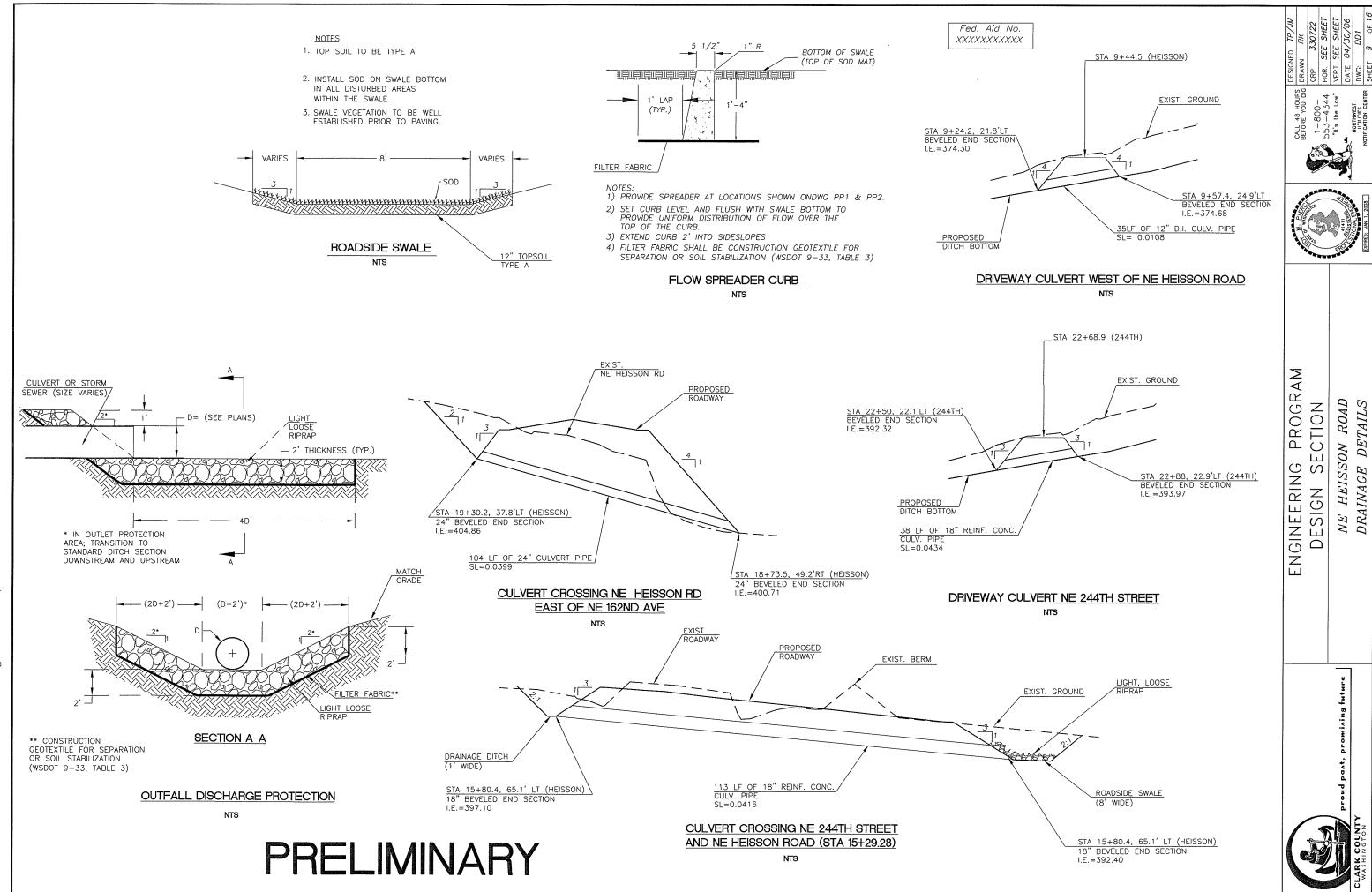
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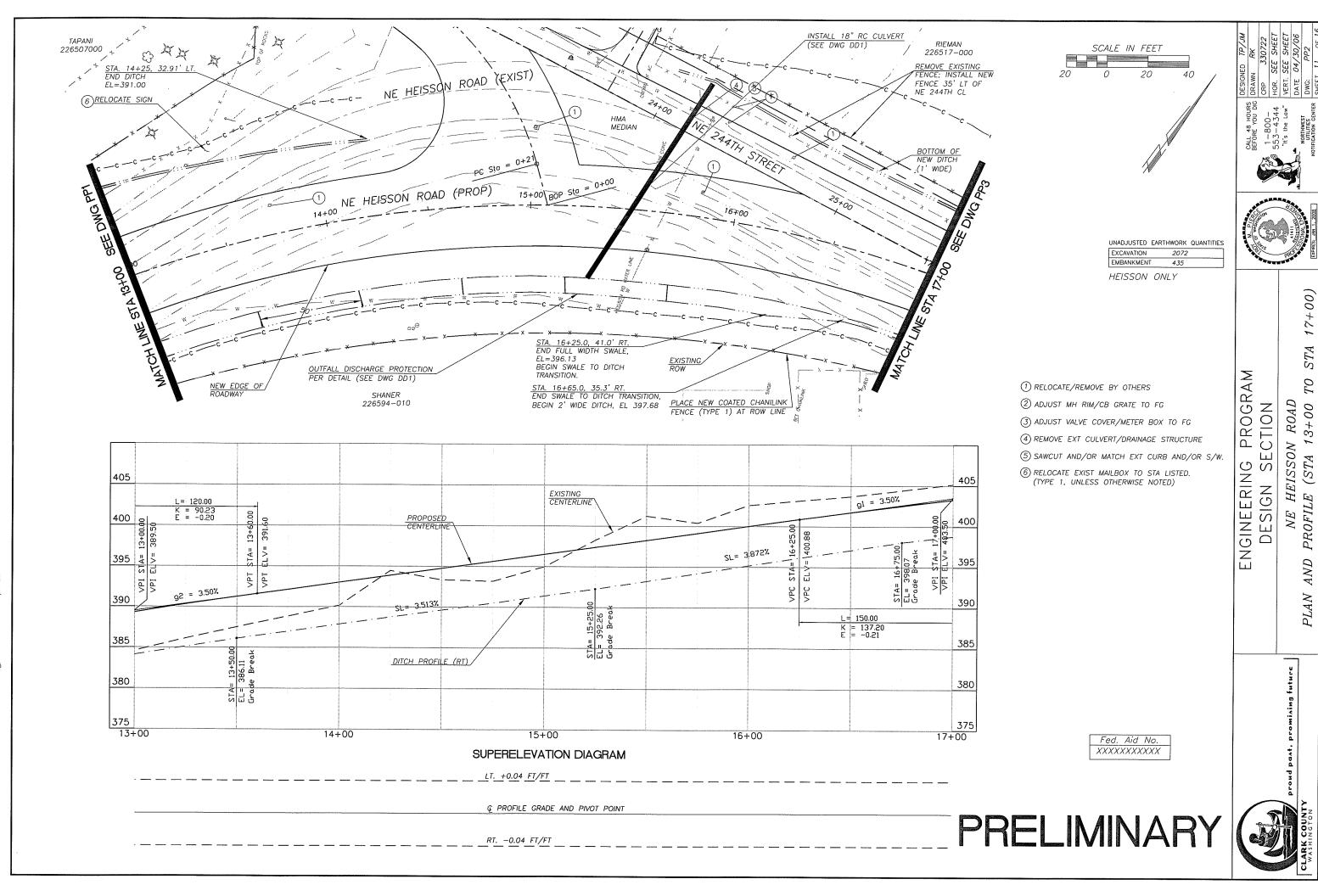
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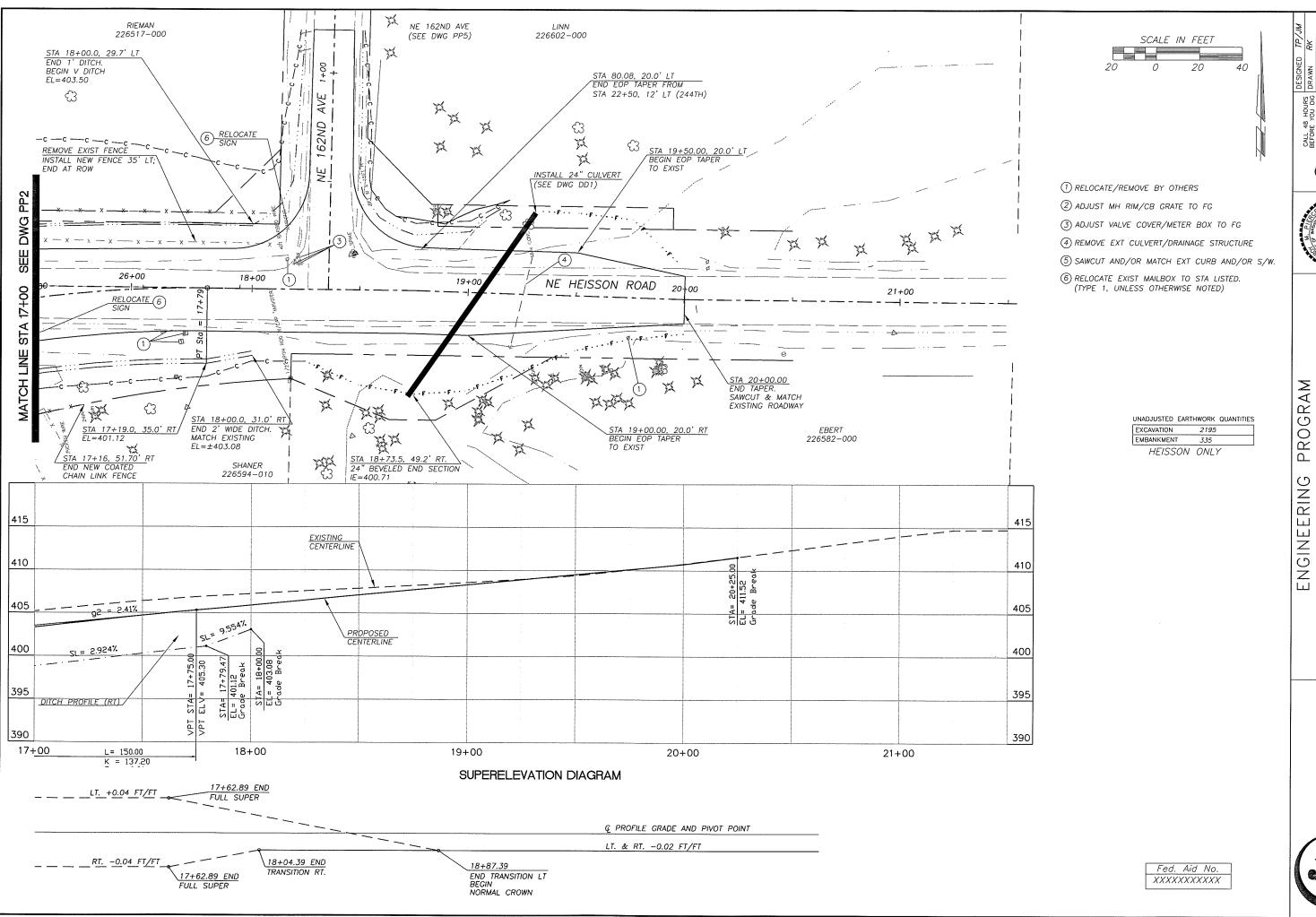


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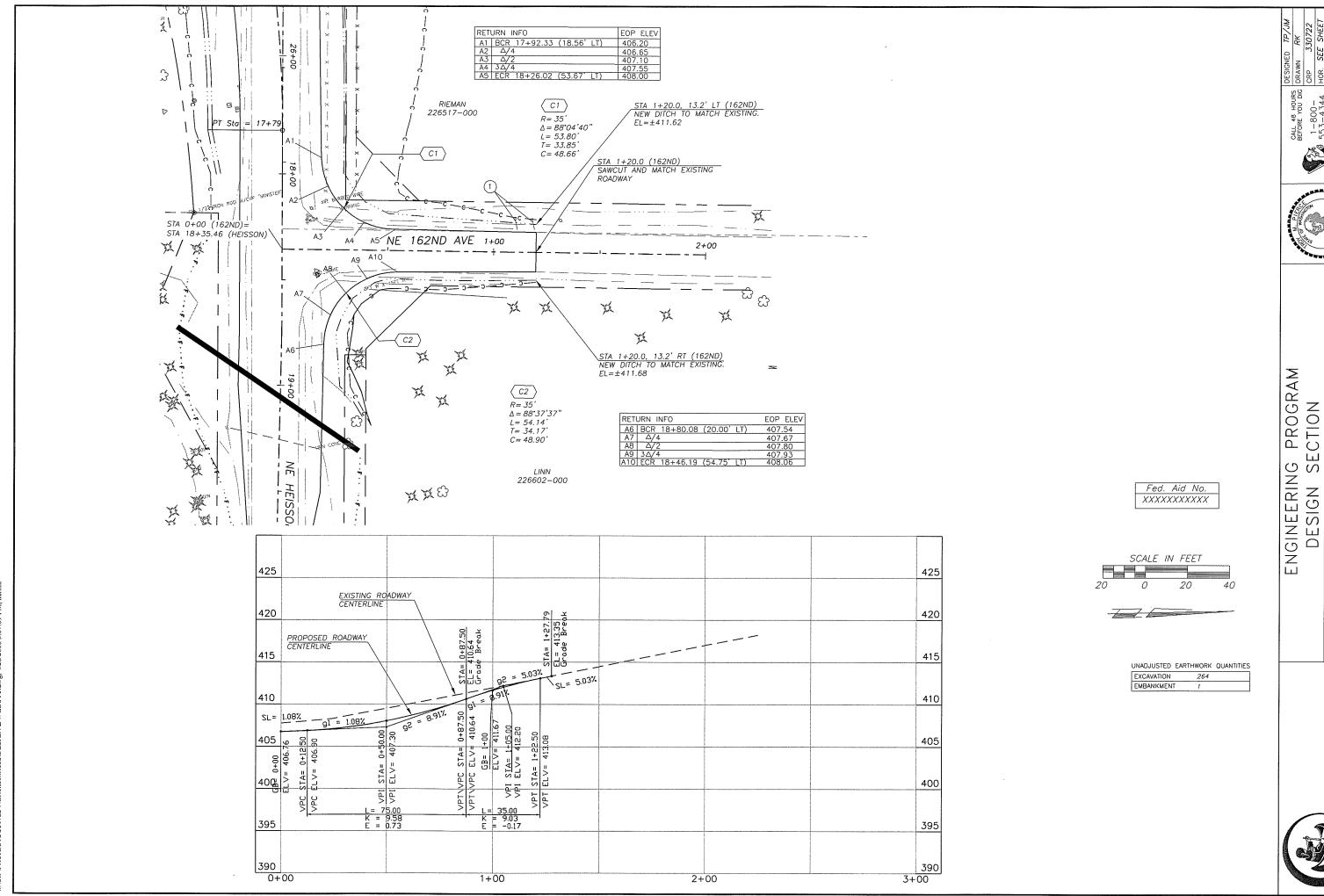








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CALL 48 HOURS BEFORE YOU DIG 1-800-553-4344 "It's the Low"

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PROFILE

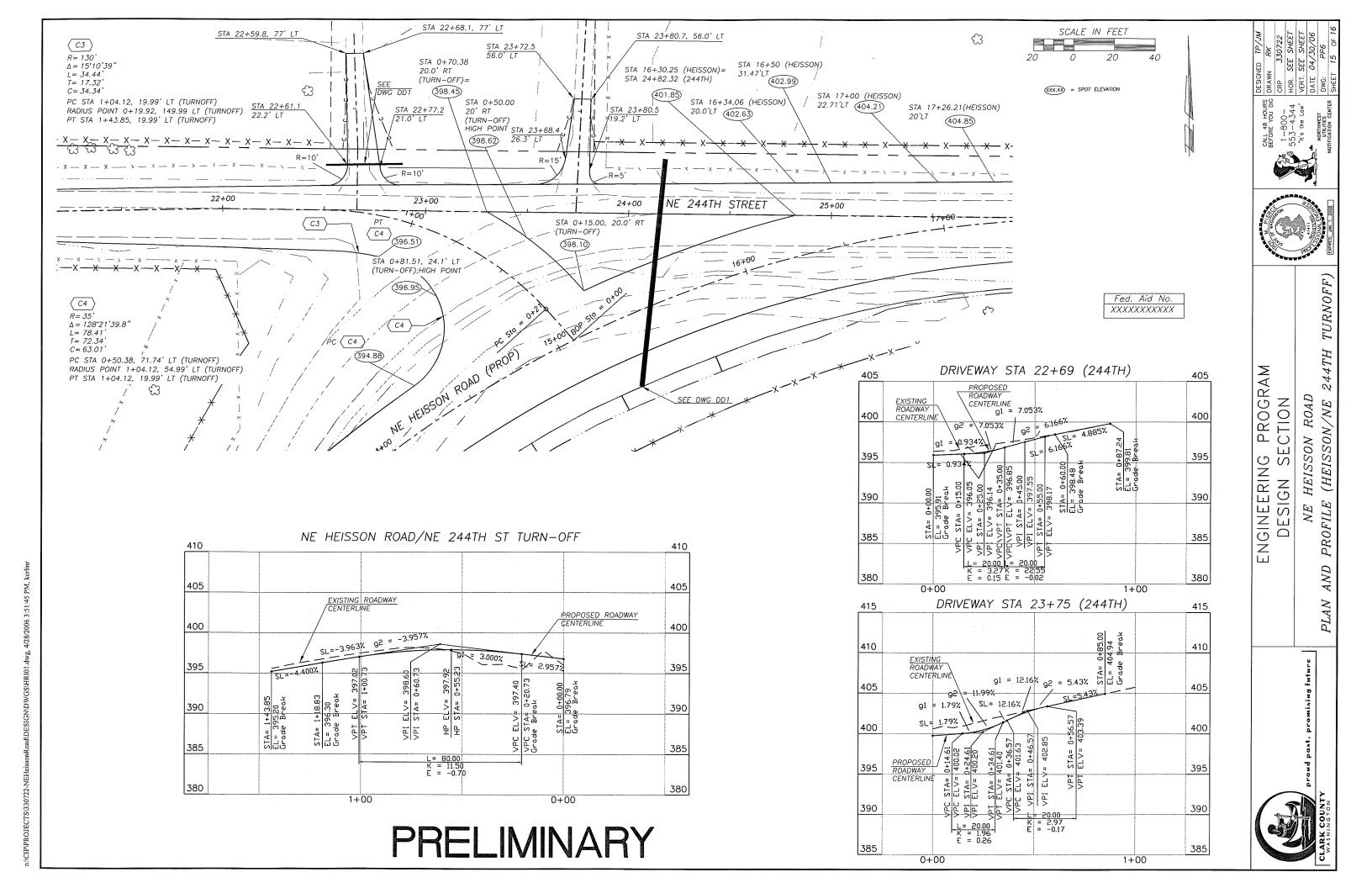
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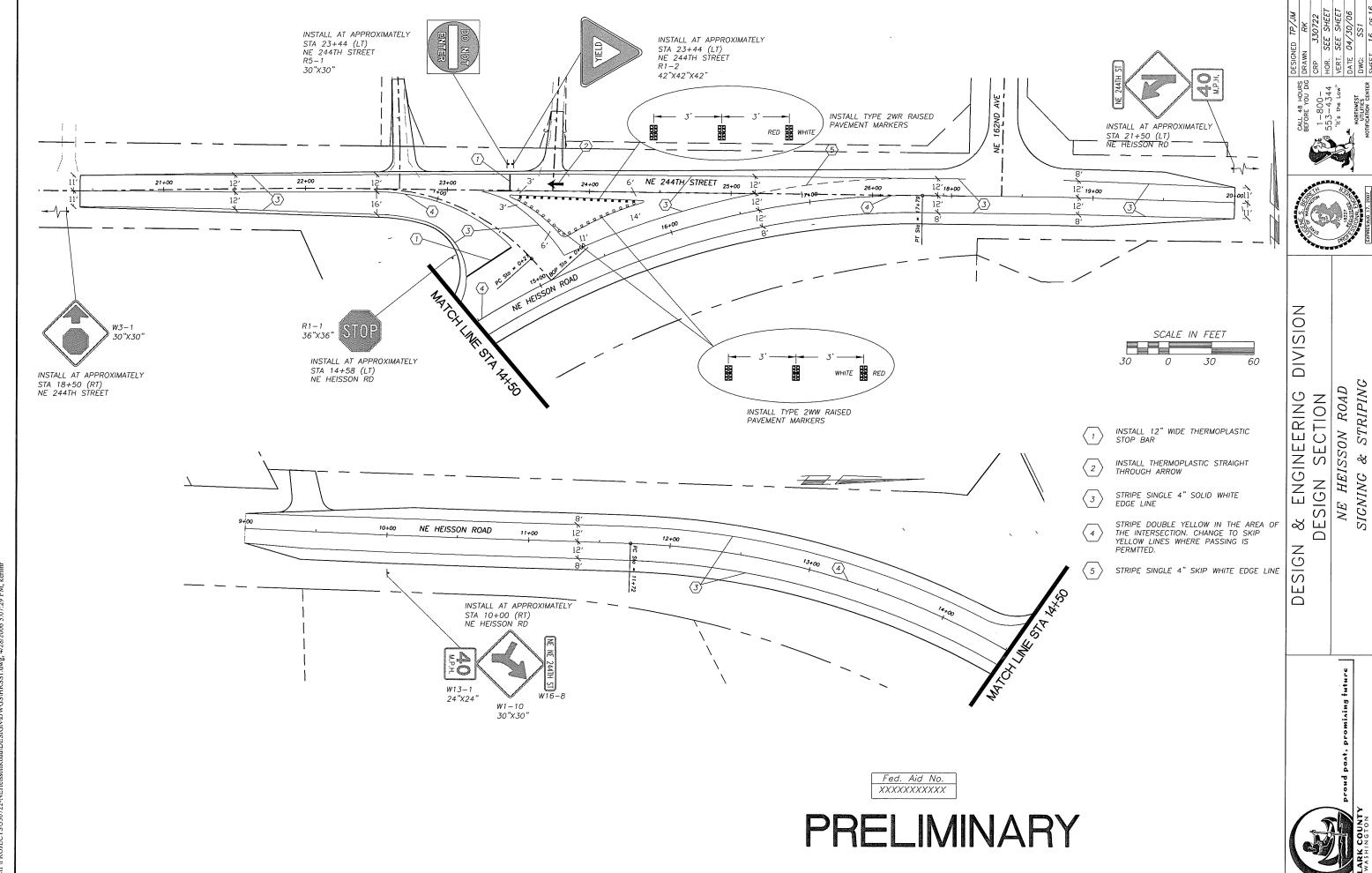
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